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ORIGINAL AND SELECTED ARTICLES.

DIPHTHERIA.

BY CHARLES J. BURROUGHS, M. D., OF GEORGIA.

The subject under consideration is one upon which much has been written, but as each year we see more of it in our practice, we cannot be too familiar with all that pertains to it.

It has existed under many names, but that by which it is now recognized is a synonym of *diphtherite*, a word coined by Bretonneau from the Greek *diphthera*, a skin or parchment, and *itis*, implying inflammation.

It has been thought by some that its early history dates beyond the days of Hippocrates, but by others it is doubted if observations then referred really to diphtheria. The "Syriac Ulcer" mentioned by Aretans is considered as having more resemblance to this disease than any other of antiquity.

It was not until the 16th century that we find diphtheria fully recognized, and we are indebted to a French physician named Baillou for an accurate description of it. Other physicians, such as Tilla Real, Fontecha, Herrera, Cortesius, Alaymus, Ghesi and John Fothergill, have written on diseases, nearly all of which can be credited to diphtheria.

In the year 1789 Dr. Samuel Bard, of Philadelphia, published a

very interesting history of "An uncommon, and highly dangerous Distemper," which had recently proved fatal to many children in New York. Dr. Abercrombie wrote an accurate description of this affection in 1828. It prevailed as an epidemic in Edinburgh in 1826, and in Paris in 1853. We find it stated in one of our text-books that no deaths from diphtheria are reported as occurring in Philadelphia prior to 1860, but many cases are known to have been reported under the head of croup.

It is now, however, a disease we are often called upon to combat. It attacks the high and low, rich and poor, and whilst we most frequently find it among children, it is not uncommon among adults.

We see no partiality to any particular sex. To the seasons, it seems more to favor the fall and winter, more especially the former, judging from our experience, but we have met with it even in the heat of summer—having attended two cases since commencing this article, (July).

Cause.—Although the disease often arises in connection with bad drainage, foul habits and impure water supply, we have seen it originate where we could not trace it to any of these causes especially. There is no doubt that too little attention is paid to proper rules of hygiene. If this were done there would be less liability to disease, but even where extra caution has been observed, by some means or other this disease has obtained a foothold.

It is remarkable how long the germs may remain dormant and then develop under certain conditions. Instances are recorded where the virus has remained latent for months, and in one case for three years, and then became active.

Is the disease contagious?—As such it is considered by many of our best clinical observers, but the experience of others do not sustain their views. It is well, however, for the physician to act upon the affirmative side of this question when called upon to treat the disease. We have always endeavored to quarantine our patients, keeping other members of the family, particularly the younger children, whom we consider more susceptible to the poison, away from them; but we have often found our commands disregarded—the well children mingling with the sick—and have seldom seen any evil result from it.

We may here state, in connection with this subject, that some remarkable cases of family susceptibility have been reported—one of which, a poor woman with three children of her own, had two others under her care. Her own children had the disease, one of whom died. The other children were not affected, though allowed

to be constantly in the same room with the little patients. We have had a family under our care in which there were three cases in 1880. About eighteen months afterwards they were again visited by the disease, and five of the children were taken sick—one of whom was among those who had been previously attacked. Though in a part of the country that was thickly settled, there were no other cases in the immediate vicinity.

Symptoms.—When called to a case of diphtheria, in its incipiency, we find the neck swollen, with the parotid, submaxillary and lymphatic glands enlarged and tender. There is fever, the thermometer running as high sometimes as 103°. Upon examining the throat we discover the viscid white, or yellowish-white secretion, generally on one tonsil, which in a day or two extends to the other and then over the soft palate and pharynx. As the exudation extends the temperature in most cases subsides, though it may rise higher. The trachea and larynx are liable now to become diseased, thereby seriously affecting the life of the patient. The nasal passages may show the exudation—also any abrasions on the body. It is sometimes seen on the nipples of suckling women.

There is necessarily great pain and difficulty in deglutition, which is increased as the disease advances, the suffering of the patient at times being intense. Debility soon begins to be evident, the pulse becoming slow and weak, and the blood-poisoning each day becoming more and more manifest until death finally ends the struggle.

We have omitted, thus far, to speak of paralysis, cardiac thrombus and albuminuria, all of which a patient with diphtheria is liable to contend with. Albuminuria may appear at any time within the first few days, but has been delayed for two or three weeks. The paralysis and heart-clot are generally found at or near the termination of the case. Too often has it occurred that when to the fond parents of a beloved child over whom they had watched day and night, and to the physician who, like the helmsman, had carefully steered his frail bark through a long and perilous voyage, in which he knew not at what moment a storm might arise which he was illy able to contend against; but now, the voyage being almost ended, all could hope that their troubles were over, and anxiety no longer was visible on every countenance, one of these symptoms had presented itself. From paralysis we do not consider our patient free under two or three weeks, or even a month. We have discharged cases, their convalescence apparently complete, and have been called to them or have them returned to us with marked paralysis. We remember an interesting case of a

boy whom we had attended and discharged, and some little while afterwards had him brought to our office with the statement that upon returning to school he had found it impossible to read, as the letters were all "jumbled up." He recovered in a short time upon treatment.

We have made no mention, thus far, of the croupous form of diphtheria, which Bartholow, in his able work says, "may begin as the ordinary catarrhal variety, and continue so without any indications of a departure from the usual course until the fourth or fifth day when it takes on a new character by its sudden development of high fever, increased tumefaction of the glands," etc. We have met with some of these cases, and their incipiency seem to be identical with the above description. The patient, for four or five days, would have the croupal cough, which increased and tightened as night came on, to be relieved by treatment until the following night when it would give symptoms of a repetition of the sufferings of the previous night.

In the treatment of this disease, we lay no claim to any originality, and will content ourselves by merely giving the formulæ we have generally found most advantageous to us. The following prescriptions we obtained some years ago from one of our journals, and deeming them good invariably use them—

No. 1.—℞. Tinct. ferri chloridi ..... ʒi–iss,
Glycerinum ..... } aa. ʒi.
Aqua pura ..... }

No. 2.—℞. Potassæ chloras ..... ʒ ss–i,
Glycerinum ..... ʒ ss,
Aqua calcis ..... ʒ iiss.

No. 3.—℞. Acidum carbolicum ..... gtt. xv,
Aqua calcis ..... ʒ vi.

Directions.—Give one teaspoonful of No. 1 and No. 2, alternating every half hour, except at night, when allow to sleep one or two hours. Spray the throat with No. 3 for several minutes at a time whenever the above mixtures are given.

N. B.—Open the mouth wide. When the child is too young for this, omit it. When the nose is affected, syringe it out with warm or tepid salt water three or four times a day. Do not apply any brush or swab to the throat. Sometimes throw a teaspoonful of No. 1, with a syringe, directly against the affected surface of the throat. Give a plenty of cold milk, and give frequently; add lime-water occasionally; also give beef tea. This would be our general treatment, save that we watch our thermometer very closely,

and if there is any fluctuation in it put in quinine *pro re nata*. If we are called early when there is much fever, we find the following prescription produce a most desirable effect—

R. Tinct. gelsemium ..... } aa. gtt. xvi,
Tinct. aconite rad ..... }
Spiritus ætheris nitrosi ..... ʒ ss,
Aqua pura ..... ℥ ii.

Of this we give a teaspoonful every half hour or hour, according to the age of the child, until we find the temperature is on the decline. We give quinine three times a day for its tonic effect, and nourish as best we can with egg-nogg, milk-punch, chicken soup, etc. A warm flax-seed meal poultice we direct to be applied to the throat during the day and at night if the patient's sufferings are such as to prevent his sleeping. Should he rest well at night we remove the poultice and apply a thick and wide flannel collar fitting tightly. We find that sponging the body with equal parts of alcohol and tepid water two or three times a day tends greatly toward strengthening our patients.

During convalescence it is our custom to put our patients on the following:

R. Chlo. potassa ..... ʒ i,
Tinct. fer. chlo ..... ʒ ii,
Glycerine ..... ℥ i,
Aqua ..... ʒ vi.
M. Sig. Dose: one teaspoonful.

We give it for the first few days every three or four hours, afterwards three times a day, and keep it up for some time, say two or three weeks, as the blood-poisoning leaves an anæmia, from which recovery is slow, and we deem that this will tend greatly toward warding off paralysis, which may make its appearance during this time.

We are constrained to differ with our professional brethren who advocate so strongly a mercureal cathartic in the commencement of this disease. We do not consider a "scavenger," viz: calomel, jalap and scammony, as a necessary adjuvant. Our experience as far as producing satisfactory results, has been very different from those who found that "the course of the disease was certainly cut short" by these means. We attended a case of a child some time ago to whom ten grains of calomel had been given previous to our arrival. The *course of the disease was certainly cut short*, but not as we would have desired, as the patient died. We are willing to admit that the bowels must do their duty in eliminating the

poison from the system, and we make use of them for this purpose, but we consider a mild cathartic occasionally given is sufficient. We try to give as little medicine of a debilitating nature, as possible, through the whole course of the disease, but strive rather to keep up the strength of our patients, and by using such treatment as we have given, we believe we have met with as favorable results as could be obtained from any other course.

INFANT FEEDING.

[Translated from the French, by Dr. E. Van Goidtsnoven, for the Southern Medical RECORD.—Le Journal Medical, Paris.]

Professor Parrot, in a series of lectures on "Infant Feeding," dwells *a priori* on a few points very little known in the anatomy and physiology of the digestive tube of that age.

In the study of the buccal cavity he demonstrates the importance and utility which should be ascribed to the fatty gland of Bichat. This gland constitutes an oblique mass, slightly stretched at its extremities, situated at the junction of the anterior two-thirds with the posterior third of the buccal parietes. It is easily distinguished from the surrounding fatty tissue. Its size, after having increased up to the second or third year, gradually diminishes, and even changes in position. When under some pathological influence the child becomes emaciated, the gland loses its consistency and tends to resume its embryonic condition ; hence a notable perturbation in the act of suction. Professor Parrot believes that Bichat's gland plays an important role in this act, and that its existence and formation can be accounted for in the following manner :

As soon as the child begins to suck a vacuum is made within the buccal cavity which the internal walls of the cheek tend to fill. It is precisely above the alveolar arcades at the point where this tendency is effected, that Bichat's fatty gland can be found, the function of which evidently consists in facilitating the act of sucking by filling the vacuum which is formed at that moment. It may be admitted that in this instance the function is parent to the organ, and that repetition of functional activity necessitates this particular organic determination ; and that, should this function suspend its action for several thousands of years, this fatty gland would ultimately disappear, as now seems to be the tendency with the wisdom tooth, especially in the upper classes. At all events, it appears certain that when this organ has become atrophied under the influence of great emaciation, the act of sucking is rendered extremely difficult thereby.

The normal situation of the stomach in a child is very interesting to consider with respect to its functions. Whilst in man its axis is almost horizontal, it is nearly vertical in the infant, which is due to the organ not being yet fully developed. Hence, if the child be held vertically the food accumulates within the greater curvature; yet, it passes easily through the pylorus. If the child be held lying on its left side, this situation is particularly favorable for stomachal digestion, for the food is thereby retained longer in the viscus before reaching the pylorus. If, on the contrary, the child be held on his right side, the food passes almost instantly into the intestines.

Dorsal recumbence, with head slightly backwards, is very favorable to regurgitation, and this position more than any other is likely to produce asphyxia through the introduction of food in the trachea, so that with children who are subject to regurgitation, it should be deemed imperative to hold them for some time after being breast or bottle fed, in a vertical position, in order to allow the food to pass rapidly into the intestines.

With regard to the gastric juice secreted by the mucous membrane of the stomach, it has been ascertained that it contains pepsin already in the third or fourth month of intra-uterine life. In this instance it should be remembered that meconism is a product of digestion. But with the new-born the effects of gastric juice present a particularity very different from what takes place in the adult. As the infant continues to suck, even to its very last moments of existence, it follows that the gastric juice keeps on secreting; and as its peptonizing action is not exhausted even by death, it acts upon the parietes which are found softened much more frequently than in the adult. Thus when alimentary substances have found their way into the bronchial passages the lungs have been found entirely digested within a few hours following death.

[TO BE CONTINUED.]

TONSILLITIS AND ITS TREATMENT.

BY L. B. DAWLEY, M. D., OF N. Y.

Without going into the minutiæ or the symptomatology of the very common disease called quinsy, which every medical man in active practice is called upon to treat, I beg leave to give my experience:

An attack of tonsillitis is usually ushered in with a feeling of malaise, headache, pains in the limbs, and a sense of chilliness, or

by a rigor. There is a sense of uneasiness in the throat, the patient complaining of soreness there, with lancinating pains extending toward the ears; and at or behind the angle of the jaws very much tenderness and stiffness exist, so that the patient may be unable to open the mouth wide enough for an examination to be made. The expression of the face is one of much suffering and anxiety. The tonsils are much swollen, and fluids regurgitate through the nose on attempting to swallow. The mouth is usually filled with a yellow, tenacious mucous saliva; and this may assume the form of a membrane, which I have removed, in some cases, in large masses, with my dressing forceps. The patient rarely assumes the recumbent position, owing to the great sense of suffocation.

Secretions are arrested, pulse increased, elevation of temperature, the voice assuming a nasal-twang, and in very bad cases there will be loss of voice, which very much frightens the patient and friends. There is usually much prostration, and this is due to the inability of the patient to take and digest nourishment.

I think if the cases are seen early, that they may terminate in resolution, avoiding abscesses and suppuration. All of my cases, and some of them of the worst form, have terminated in this way.

CASE I.—Maud E., aged 20 years, small in stature, of general good health, was taken with usual symptoms of quinsy, July 11, 1882. She called in a homœopathist of many years' practice and quite noted in throat troubles. Prescribed his usual high dilutions and inhalations of hot steam. Case grew worse under his treatment, till the family concluded to change. They called me in July 18th. I found the patient bolstered up in a large chair with a teapot in her lap and a mush poultice on her throat. Patient said she had not slept a minute, nor spoke a word, nor eaten a mouthful, in a week. (Informed me by writing on a slate.) I opened her mouth with tongue spatula, and with dressing forceps removed much yellow, tenacious mucus from fauces. Gave—

℞ Tr. aconite..... gtt. x,
Tr. phytolacca..... ʒ j,
Water..... ʒ iv.

Dose, teaspoonful half an hour apart.

Applied to tonsils with camel's hair brush, every hour, tincture of veratrum and tincture muriate of iron, *aa.* ʒ ij. Patient began spitting freely. I applied tincture veratrum (strong) to the outside of the throat by wetting a cloth and keeping it in contact with the neck. Saw patient next day, and found her able to take nourishment in liquid form. Continued treatment, and discharged my patient the third day.

The above case came to me some time afterward with symptoms pointing to the same disease. I duplicated the treatment, and the patient had no further trouble.

CASE II.—Mrs. D., aged 35 years, strong, healthy constitution. I was called to see her October 2d, 1882. She said she was sub-

ject to quinsy attacks, and always had her throat lanced, or was confined to the house for ten days at a time:

℞ Aconite..... gtt. x,
Phytolacca..... ʒ ij,
Water..... ʒ iv.

M. S. A teaspoonful every half hour.

Local application of veratrum..... ʒ j,
Tinc. muriat of iron..... ʒ j.
Water..... ʒ ij.

M. S. Use in throat with atomizer once every hour. Case terminated in resolution.

CASE III.—Chas. M., aged 28 years, large, strong, and in the best of health, with the exception of occasional attacks of quinsy. He came to my office February 18th, 1883, and with the nasal twang which plainly spoke for itself; said he had been the rounds of the doctors, and could get no relief. He concluded to see what I could do. I prescribed—

℞ Aconite..... gtt. x,
Phytolacca..... ʒ j,
Veratrum..... gtt xx,
Water..... ʒ iv.

M. S. A teaspoonful every hour.

Had a cloth wet in spirits of turpentine and applied to the throat. Saw him a week afterwards, when he met me and said: "Doctor, you did what no other doctor ever accomplished." Said he went to bed after using my medicine, and slept all night, and next day could take food in liquid form. No suppuration.

CASE IV.—Miss C., aged 18 years, presented herself at my office May 9th, 1883, and had the same story to tell of what she had heard of my success in curing quinsy. She was just coming down with the disease. I prescribed as follows:

℞ Aconite..... gtt. x,
Phytolacca..... ʒ j,
Veratrum..... gtt. xx,
Water..... ʒ iv.

M. S. A teaspoonful every hour.

Applied spirits of turpentine to the throat as in previous case. Patient came back in a week, and said that she was quite well. Suppuration had always occurred on previous attacks.

I could go on and multiply cases, but I think this is sufficient. My success with phytolacca in glandular diseases has been quite extended. In the treatment of chronic tonsillitis I rely solely upon phytolacca and tonics.—*Eclec. Med. Jour.*

QUINIUM SALTS.

BY R. ROTHER, M. D.

The quinium salts found in the general market, excepting the sulphate, are very much less in demand than this great staple salt, probably because it appeared earliest in the field and so became the dominant form. Had the chloride, instead of the sulphate, been first presented its introduction would have followed as a matter of course. It is, indeed, to be regretted that this was not the case, since the chloride has more specially valuable qualities than are possessed by any other quinic salt. Containing a greater percentage of quinine it is at the same time more soluble in either alcohol or water than any other normal quinium salt; and, although far more soluble than the normal sulphate, it is much less bitter and less persistently bitter than this. Another advantage is that owing to its greater solubility all other less soluble salts of quinine can be prepared from it by double decomposition. Whilst being the staple form it could also be the cheapest salt of the market, and hence all other varieties prepared from it would be correspondingly less costly than now.

For preparing the various quinium salts from the sulphate, two methods are in use: One consists in precipitating the base from the acid sulphate by means of caustic alkali, and dissolving it in the acid of which the salt is desired. By the other method either the normal or the acid sulphate is decomposed by the barium salt of the acid whose quinium compound is to be obtained. In certain cases other processes or modifications of the foregoing may be employed with advantage.

The first general method is rarely desirable, and the use of the barium salts although frequently directed is not often resorted to, the corresponding calcium salt with alcohol being employed in most cases with superior effect. By one method strong alcohol is employed and the entire precipitation of the by-product is aimed at. In the second, only sufficient alcohol is added after the completion of the reaction to effect the solution of the generated quinium salt in the least volume of aqueous menstruum.

Of several processes for producing quinium chloride the best is afforded by taking advantage of its almost total insolubility in a saturated solution of sodium chloride. When any convenient amount of quinium sulphate is mixed with a hot filtered saturated solution of sodium chloride, the quinium chloride is precipitated as a crystalline magma which rapidly agglutinates, and, on cooling, forms a compact friable mass. The liquid is poured away from the residue, which is washed from the sodium sulphate generated by heating several more times with sodium chloride solution. The quinium chloride may be crystallized from hot water in the usual manner.

Quinium hypophosphite is usually made by dissolving the free base in hypophosphorus acid and crystallizing. The best result is obtained by dissolving 170 parts of calcium hypophosphite in 15,-

000 parts of water, heating the solution and adding 872 parts of quinium sulphate, filtering after the calcium sulphate has subsided and setting the solution aside to crystallize.

The union of tannin with quinine, the so-called tannate, in view of its medicinal inferiority and excessive cost, is yet considerably used, probably on account of its lack of bitterness. This salt, if salt the ordinary article may be called, contains a very low, in fact the very lowest percentage of quinine, and is also one of the most insoluble compounds of this base.

Tannin has a varied affinity for many substances. and in different degrees for the same substance. By reason of this peculiarity the quinium tannate, or tannolate, as ordinarily prepared, contains a very large excess of tannin compounded with free acid, so that the article is in reality a mixture. Manufacturers, indeed, endeavored to have the largest possible amount of tannin absorbed, deeming such a procedure perfectly legitimate in view of the fact that no recognized and definite standard for comparison exists. The bitterness of the substance, of course, diminishes in proportion to the deficiency of quinine contained in it, and the degree of its envelopment by the inert acid tannolate.

There is a quinium sulpho-tannolate of fairly definite composition which might, with advantage, replace the other so-called tannates. It may be readily prepared by the following formula: Dissolve 322 parts of tannin and 98 parts of potassium acetate in 10,000 parts of water, by the aid of heat, then add 872 parts of quinium sulphate, continue the heat for a few minutes, transfer the precipitate to a filter, and after sufficient washing dry it by exposure to the open air.

Syrup of yerba santa is growing in popularity as a vehicle for quinine in a tasteless form. As ordinarily prepared, it represents one ounce of the leaves in the pint, but a syrup of half this strength would be quite as good for general purposes. The active agent is an acid resin, which generates with quinine a nearly insoluble salt, which is decomposed by the common acids in the free acid resin and soluble quinium salt. The compound of quinine with the resin is a definite salt, and would be an excellent substitute for the indefinite tannolates of the market. It can be readily produced by extracting the leaves with water containing some alcohol and ammonia, and mixing the liquor with quinium sulphate, warming gently, washing the precipitate and drying it by exposure.

Syrup of yerba santa is best prepared by percolating one ounce of the leaves in coarse powder with water containing one drachm of ammonia water and two fluid ounces of alcohol in the pint, until one pint of liquor is obtained, and dissolving twenty-eight troy ounces of sugar in this with gentle heat. This syrup is clear and bright, having a deep brown red color, and slightly bitter but pleasant honey-like taste.

Quinium valerate in two crystalline forms in star-grouped needles, and in plates.

The first kind are obtained from a hot saturated solution by cooling; the second, at a lower temperature by slow evaporation. The first is the most practical form, and most readily produced. Double

decomposition is the only practical procedure for preparing the valerate. Two or three methods may be used, but the best process is that by double decomposition between quinium sulphate and calcium valerate in the presence of weak alcohol. This yields the salt chiefly in star crystals. The calcium valerate is generated by the action of valeric acid in aqueous solution on calcium carbonate. The reaction is almost instantly completed with copious effervescence. The formola is as follows: Mix 204 parts of valeric acid with 5,000 parts of water, add 100 parts of calcium carbonate, and when effervescence has ceased and a clear solution has resulted, add 2.500 parts of alcohol and 872 parts of quinium sulphate. Now heat the mixture until decomposition is complete; filter whilst hot, and rinse the residue of calcium sulphate with a little alcohol or weak alcohol, and set the filtrate aside to crystallize. Collect the crystals on a filter, drain, and dry in the open air. The drained liquor on evaporation will yield an additional crop of crystals.—*Abridged from an Article by R. Rother, in the American Journal of Pharmacy.—Va. Med. Monthly.*

THE HOT WATER TREATMENT.

DIRECTIONS FOR USING HOT WATER ACCORDING TO THE SALISBURY PLANS.

1. *The water must be hot; not cold or lukewarm.*—This is to excite downward peristalsis of the alimentary canal. Cold water depresses as it uses animal heat to bring it up to the temperature of the economy, and there is a loss of nerve force in this proceeding.

Lukewarm water excites upward peristalsis or vomiting, as is well known. By hot water is meant a temperature of 110 degrees to 150 degrees F., such as is commonly liked in the use of tea and coffee. In cases of diarrhœa the hotter the better. In cases of hemorrhages the temperature should be at blood heat. Ice water is disallowed in all cases, sick or well.

2. *Quantity of hot water at a draught.*—Dr. Salisbury first began with one-half pint of hot water, but he found it was not enough to wash out nor to bear another test founded on the physiological fact that the urine of a healthy babe suckling a healthy mother (the best standard of health) stands at a specific gravity varying from 1015 to 1020. The urine of the patient should be made to conform to this standard, and the daily use of the urinometer tells whether the patient drinks enough or too much hot water. For example, if the specific gravity of the urine stands at 1030, more hot water should be drunk, unless there is a loss by sweating. On the other hand, should the specific gravity fall to 1010, less hot water should be drunk. The quantity of hot water varies usually from one-half to one pint or one and a half pints at one time drinking.

The urine to be tested should be "the urina sanguinis" or that

voided just after rising from bed in the morning before any meals or drinks are taken.

The quantity of urine voided in twenty-four hours should measure from forty-eight to sixty four ounces. The amount will, of course, vary somewhat with the temperature of the atmosphere, exercise, sweating, etc., but the hot water must be given so as to keep the specific gravity to the infant's standard, to wit, 1015 to 1020. The urinometer will detect at once whether the proper amount of hot water has been drunk, no matter whether the patient is present or absent. Another test is that of odor. The urine should be devoid of the rank "urinous" smell so well known, but indescribable.

The Salisbury plans aim for this in all cases, and when the patients are true and faithtul the aim is realized.

3. *Times of taking hot water.*—One hour to two hours before each meal, and half an hour before retiring to bed.

At first Dr. Salisbury tried the time of one hour before meals, but this was apt to be followed by vomiting. One hour to two hours allows the hot water time enough to get out of the stomach before the food enters or sleep comes, and thus avoids vomiting. Four times a day gives an amount of hot water sufficient to bring the urine to the right specific gravity, quantity, color, odor, and freedom from deposit on cooling. If the patient leaves out one dose of hot water during an astronomical day, the omission will show in the increased specific gravity as indicated by the urinometer, in the color, etc. Should the patient be thirsty between meals, eight ounces of hot water can be taken any time between two hours after a meal and one hour before the next meal. This is to avoid diluting the food in the stomach with water.

4. *Mode of taking the hot water.*—In drinking the hot water it should be sipped, and not drunk so fast as to distend the stomach and make it feel uncomfortable. From fifteen to twenty minutes may be consumed during the drinking of the hot water.

5. *The length of time to continue the use of hot water.*—Six (6) months is generally required to wash out the liver and intestines thoroughly.

As it promotes health the procedure can be practiced by well people throughout life, and the benefits of "cleanliness inside" be enjoyed. The drag and friction on human existence, from the effects of fermentation, foulness, and indigestible food, when removed, gives life a wonderful elasticity and buoyancy somewhat like that of the babe above alluded to.

6. *Additions to hot water.*—To make it palatable, in case it is desired, and medicate the hot water, aromatic spirits of ammonia, clover tea blossoms, ginger, lemon juice, sage, salt, and sulphate of magnesia are sometimes added. Where there is intense thirst and dryness, a pinch of chloride of calcium or nitrate of potash may be added to allay thirst and leave a moistened film over the parched and dry mucous membrane surfaces. When there is diarrhœa, cinnamon, ginger and pepper may be boiled in the water, and the quantity drunk lessened. For constipation a teaspoonful of sul-

phate of magnesia or one-half teaspoonful of taraxacum may be used in the hot water.

7. *Amount of liquid to be drunk at a meal.*—Not more than eight ounces. This is in order not to dilute the gastric juice or wash it out prematurely, and thus interfere with the digestive processes.

8. *The effects of drinking hot water as indicated, are* the improved feelings of the patient. The fæces become black with bile washed down its normal channel. This blackness of fæces lasts for more than six months, but the intolerable fetid odor of ordinary fæces is abated and the smell approximates the odor of healthy infants suckling healthy breasts, and this shows that the ordinary nuisance of fetid fæces is due to the want of washing out and cleansing the alimentary canal from its fermenting contents. The urine is clear as champagne, free from deposit on cooling, or odor, 1015 to 1020 specific gravity, like infant's urine. The sweat starts freely after drinking, giving a true bath from centre of body to peripher. The skin becomes healthy in feel and looks. The digestion is correspondingly improved, and with this improvement comes a better working of the machine. All thirst and dry mucous membranes disappear in a few days, and a moist condition of the mucous membrane and skin takes place. Ice water in hot weather is not craved for, and those who have drunk ice-water freely are cured of this propensity. Inebriety has a strong foe in the use of hot water.

9. *Summary of general considerations on the therapeutical drinking of hot water.*—

(*a*) Foundation of all treatment of chronic diseases.

(*b*) Excites downward peristalsis.

(*c*) Relieves spasm or colic of the bowels by applying the relaxing influence of heat inside the alimentary canal, just as heat applied outside the abdomen relieves.

(*d*) Dilutes the ropy secretions of the whole body, and renders them less adhesive, sticky and tenacious.

(*e*) Inside bath.

(*f*) Dissolves the abnormal crystalline substances that may be in the blood and urine.

(*g*) Necessary to have the hot water out of the stomach before meals.

(*h*) Use is to wash down the bile, slime, yeast and waste, and have the stomach fresh and clean for eating.

(*i*) Promotes elimination everywhere.

(*j*) If objection is made, it must be remembered that we are 75 per cent. water.

(*k*) The gas that is sometimes eructated after drinking hot water is not produced by the hot water, but was present before, and the contraction of peristalsis ejects it, or sometimes it is that the air is swallowed in sipping as horses suck air. The amount of gas contained in the alimentary canal is larger than most are aware of, and yet it is not excessive, as it takes some time to eruct a gallon of gas from the stomach. This length of time can be tested by submerging a gallon jug filled with air under water, and observing how long it will be in filling with water.

(*l*) Some physicians have advised against hot water, on the ground that it would "burn the coating of the stomach." If this is so, then a denudation of the lining of the stomach continuously for twenty-four years is compatible to a state of otherwise perfect health with no sign of illness for that period of time, and is also compatible with the numerous cases that have occurred under the use of hot water as a foundation for treatment during the past twenty-five years. Again, the same physicians drink tea and coffee at the same temperature, and this act belies their warning and shows their inconsistency and want of consideration before speaking.

(*m*) These dicta about the therapeutic drinking of hot water were founded on physiological experiments at the outset, verified in pathology and based on the experience derived from the treatment of thousands of cases since 1858. They are open, so that all who will may partake of this "water of life freely."

10. *Personal estimate of the founder of this practice.*—"If I were confined to one means of medication, I would take hot water. I have drunk it for twenty-five years."

Corroboration of the writer.—The writer testifies that his own personal experience and observation corroborate the truth of these statements of the Salisbury plans.—*Dr. Cutter in Gaillard's Medical Journal.*

ON THE "DRY DRESSING" TREATMENT OF WOUNDS.

BY SAMSON GAMGEE, M. D.

Generalizations are proverbially difficult in a science and practice like that of surgery. However sound be their foundations, however close the reasonings by which they are arrived at, their success in particular cases depends on the judgment, skill and care with which they are applied. To the reservations already made I must add something on "Dry Dressing," which, unqualified, is a very misleading designation of this plan of treatment. It is certainly entitled to be called "dry dressing," inasmuch as water is not used, and even astringent and antiputrescent lotions very sparingly so; but success demands attention to all essentials of the physiological treatment of surgical injuries—immobility, position, and pressure, drainage and infrequent dressing, pure and non-putrescent materials; gentle, patient, and skilled manipulation; intelligent and unceasing watchfulness of constitutional states.

Fresh wounds without loss of substance are particularly suited for the plan of treatment here recommended. They should be put up without water, the edges accurately in contact; always bearing in mind the necessity of providing for drainage outward of any effused fluid. Under absorbent pads and elastic pressure, with absolute rest and attention to position, the vast majority of fresh wounds heal rapidly, solidly, and painlessly. When the dressing is changed, which it should only be infrequently, no water

should be employed; but if there be any discharge and necessity for cleaning, this can best be done with a pledget of dry lint or of absorbent gauze and cotton; all manipulations to be of the lightest. Such dry dressing simulates the natural scabbing process, but is really more perfect. Wounds of many inches in length heal so directly and perfectly under dry dressing and elastic pressure, that in the course of a few days it is often difficult to detect the fine linear scar on the dry and shrivelled skin. If a fresh wound be attended with loss of substance, some boroglycerine should be poured on the part before application; it prevents too close adhesiveness, and possible bleeding, when the dressing is removed, and has the further advantage of preventing decomposition.

The necessary employment of sutures and adhesive plasters, according to requirements, need not be dwelt upon, and I shall only briefly remark that instead of, or in addition to, such bonds of union, I frequently employ styptic colloid, compound tincture of benzoin or collodion.

In wounds with large loss of substance, if healing be slow, action may profitably be stimulated by a variety of the well known astringent applications in ointment or lotion, than which I do not know a better than the old red lotion, with a liberal addition of glycerine. Position, rest, and pressure remain cardinal indications, poultices and water prohibited. By this I mean stagnant water in the shape of water dressing, which is nearly as potent as a poultice in promoting suppuration and decomposition. It is otherwise with cold water irrigation, which is consistent with, nay may be made conducive to, perfect drainage, and by its astringent and sedative action produces effects very similar to those of rest and pressure. Cold irrigation is not easy to apply continuously comfortably, and one of its great advantages, the low temperature, may be secured by ice bags.

I hope I have made it clear that while the absence of water is a prominent feature of the "Dry Dressing" method, an essential is the maintenance of immovable apposition under elastic pressure, whereby the dynamics of the circulation are so controlled that the part is only allowed blood enough to nourish it. Irrigation, the great cause of stasis and effusion, is reduced to a minimum, and the part is maintained in a state the nearest approaching to inaction and dryness. In direct proportion the material and the possibilities of decomposition are averted.

Contused and inflamed wounds likewise afford conclusive evidence of the soundness and general applicability of the principles and method just related. The dressing which I hold in my hand was removed from one of the employees in an iron warehouse. He was moving some pigs of iron, when one, weighing a little over a hundred weight, fell on his right foot. I saw the case very shortly afterward, and found the foot very much swollen, its bony outline obliterated, the skin bluish and shining, with a star-shaped wound on the center of the instep. Having satisfied myself that no foreign body was present, I dried the wound and placed over the dorsum of the foot this large pad of absorbent gauze and cot-

ton, and then a compressive bandage from the roots of the toes to the middle of the leg. I enjoined my patient to keep perfectly quiet, lying during the day with his head at the foot of a sofa and the injured foot over its head. I did not remove the dressing until the eighth day, when the wound was healed, the outline of the limb perfect, and though the skin was mottled, as from a bruise, up to the middle of the leg, it was cool and painless.

You see how the blood had penetrated, though in small quantity, through the dressings, and dried on the outside. The tincture of benzoin had acted as a coagulant and anti-putrescent, and drying into the lint served the purposes of a mould. Its styptic property was assisted by pressure and position, under which the effusion was absorbed; the part shrank, and the wound healed without further interference. This result, a typical one of the method, was not a simple consequence of a dry application, but due to a variety of causes which combined in controlling the circulation and promoting reparative action in accordance with demonstrably true principles of animal physics.—*Lancet.*

THE USE OF WATER IN THE DIETARY OF YOUNG CHILDREN.

BY CHARLES REMSEN, M.D.

During my service as interne at the Nursery and Child's Hospital this summer, one factor in the production of infant mortality during hot weather has impressed itself strongly upon my notice. I refer to the ignorance shown by most persons, especially in the lower ranks of society, in regard to the amount of water required by children, either nursing or artificially fed.

Because the natural food of young children is in a fluid form, the laity generally suppose that no further supply of water is necessary. In medical writings on this topic, also, too little stress is laid on the importance of giving minute instructions in regard to this point.

When we consider the difference in the amount of fluids taken by an adult during hot and cool weather, it can readily be understood how a supply of water amply sufficient to meet all the requirements of a child in winter may be totally inadequate in the dry heats of summer. No provision for an increased supply, however, of this necessary principle is made through the natural channels; but, if the call for it be not attended to, the most serious consequences will result.

The blood having parted with much of its water to supply the increased evaportion from the surface of the body, will take up very quickly the fluid portion of any food introduced into the stomach, leaving the solids too thick to be easily digested; these then ferment and produce indigestion and colic, and, passing downward, diarrhœa, and hence a further drain upon the blood. As a consequence of the thickened state of the blood thus pro-

duced, the excretion of sweat is stopped and a condition of collapse and hyperpyrexia developed.

When we take into account the fact that there is a larger proportionate area from which evaporation takes place in children than in adults, and that there is a greater amount of activity displayed in all the vital processes in the former, it is evident that their punishment should be not only relatively greater in amount, but also given at much shorter intervals. In warm, dry weather babies will drink cool water every hour, or even at shorter intervals, if, as it should be, it is offered to them. When they are suffering from diarrhœa, the amount that they will drink and the improvement produced by it are astonishing.

The earliest sign showing the amount of water in the system to be below the normal standard is a slightly depressed condition of the anterior fontanelle. This may be present in children who otherwise present the appearance of perfect health ; yet any slight increase in temperature or deprivation of the breast for a few hours may give rise in them to a sudden hyperpyrexia. In nursing children, however, the attention is usually first aroused by fretfulness, a moderate rise of temperature and pulse, a hot, dry skin, and a constant desire to nurse. If a child in this state be given a free supply of water, and its nursing restricted in frequency, the symptoms will often disappear quickly and completely ; but, if not, collapse will soon come on.

In this condition the temperature ranges from 105° to 106° F., or higher ; the pulse is small and thready, and beats from 180 to 200 to the minute, the skin of the body feels painfully hot, while the extremities are cool ; the features are pinched and sunken, the eyes are half closed, with the pupils contracted ; the fontanelle is depressed, the hands are tightly shut ; the respiration is hurried and irregular, and consciousness seems abolished. In the majority of cases vomiting and diarrhœa have been absent, or, at most, the patient has had one or two small slimy stools. A child in this state will swallow water when offered to it with greediness and the expression of the utmost pleasure.

The treatment adopted at the Nursery for these emergencies consists in wrapping the patient in a wet sheet, applying cold to the head, and giving as much water by the mouth as the child will swallow.

The results of this simple method have been extremely satisfactory, the child becoming quiet, and even going to sleep, while all the threatening symptoms subsided with great rapidity.

The attention given to this point as a prophylactic measure among the inmates has been followed by a diminished rate of mortality, and a marked reduction in the number of gastric and intestinal complaints.

In conclusion, it may be said that if more care were directed toward giving children a proper amount of water, and restricting their hours of nursing or feeding, the mortality due to hot weather would decrease, and less would be heard about the troubles of teething.—*N. Y. Med. Rec.*

GONORRHŒA EASILY CURED.

BY Z. T. DELLENBAUGH, M. D., OF CLEVELAND, OHIO.

Founding an opinion on the recent text-books and treatises on this disease, one would imagine there had been little, if any, progress in its treatment. The young practitioner, without practical experience, who undertakes the management of gonorrhœal cases by the plan of treatment generally recommended in these works, with nauseating mixtures and conglomerate injections, will certainly be discouraged, and find his cases dragging along, or quit him, to become rounders. In cases of acute gonorrhœa I have, for eight or ten years, used carbonate of lithia to alkalinize the urine, and find the five-grain compressed tablets, one taken three times daily, very convenient, fulfilling every indication better than any other salt. I now rarely find it necessary to give any other remedy internally.

Should the case fail to respond to the following injection, and show marked improvement in two or three days, two sandal-wood oil capsules may be given, three times daily, for three or four days. The injection I have used in cases of acute and sub-acute gonorrhœa for more than a year, with the most gratifying results, especially to the patients, who have recovered in from two to seven days, and paid me from one to three visits, is the following—

℞ Resorcin..... ℥ j,
Acid. boracic..... gr. xx,
Zinci acetatis..... gr. ¼–½,
Aquæ distillat..... f. ℥ iv.

M. Of this solution two teaspoonfuls are injected three times daily. The germicides, resorcine and boracic acid are so slightly astringent, that it requires the additional zinc salt to restore capillary tonicity. This injection is quite or nearly painless.

In the treatment of the later stage of sub-acute and chronic gonorrhœa, without stricture or granuloma as a complicating factor, I have had the happiest results follow the use of the following injection—

R. Hydrargyri chloridi corrosivi..... gr. ¼ ss.
Zinci chloridi..... gr. ss–j,
Aquæ distillat..... f. ℥ viij.

M. Sig. A tablespoonful to be injected well down into the urethra, three times daily.

Corrosive sublimate injections are by no means a recent addition to the list. The rationale of their use, however, is recent. As in the injection for acute cases, the germicidal constituent must be so sparingly used (otherwise it produces great pain and reactive inflammation), that I find it very advisable to combine a more astringent salt; and the chloride of zinc is the one I have selected, for obvious reasons. Without doubt, a mild injection of corrosive sublimate and chloride of zinc is destined to be the injection for sub-acute and chronic gonorrhœa.—*Clin. Record.*

THE RADICAL CURE OF VARICOCELE BY EXCISION OF THE VENOUS PLEXUS, ILLUSTRATED BY THREE CASES.

BY H. C. BOENNING, M.D., OF PHILADELPHIA.

For the radical cure of varicocele, I have recently performed an operation which, in three cases, has resulted in a speedy, complete cure, and which, if properly done, is superior to the ordinary operation—because, first, it is *simple, easily performed,* and the parts under the sense of *sight* as well as feeling; second, it is invariably successful; third, the free drainage prevents absorption of pus or other discharges. It is well known that, as the result of the so-called subcutaneous ligation (intra-scrotal) of the veins, gangrene of the testicle, abscess, sloughs, and pyæmia have occurred, with, in some cases, a fatal result. Free drainage is an acknowledged important factor for the prevention of blood-poisoning, and is as necessary in the operation for the cure of varicocele as in any other wounds In the ordinary varicocele operations, also, the sense of feeling is entirely and alone relied upon; it is undeniable that, frequently, puncture of the veins, or incomplete ligation of the veins, occurs, resulting in complications interfering with the obliteration of the varicocele; further, in some cases the varicocele, through collateral circulation, returns a few weeks after the so-called radical operation.

The operation of excision is performed as follows:

The parts are shaved; the patient is anæsthetised; an incision is then made through the anterior portion of the scrotum, about three-fourths of an inch to the left of the raphe and about two inches in length, from near the lower portion of the scrotum up; the tissues are divided, layer after layer, upon a director, until the cord, veins and testicle are exposed; the vas deferens is carefully drawn over to the right; the veins are isolated, separated, and an aneurism-needle is passed, armed with a strong catgut or waxed-silked double ligature; the veins are then ligated above and below, the ligatures being placed half an inch or more apart; the veins are then divided midway between the ligatures, as is the thyroid gland in tracheotomy, and the stumps of veins beyond the ligatures are retrenched, if necessary, by the scissors. All the veins, however, should not be ligated; *one or two should be left to return the blood* supplied by the arteries of the cord. The general inference that the veins of the cord are sufficient to carry off the venous blood is incorrect; and, hence, to assist the circulation the above plan should be adopted, lest gangrene ensue, or a chronic congestion of the testicle. After the veins have been ligated, divided and retrenched, the parts should be carefully cleansed, as is the peritoneum after abdominal section, and returned to their places; the ligatures, cut about four inches long, drawn out of the sac at the lower portion, and sutures applied from above downward; three silver wires should be deeply passed *through* the lips of the wound, so as to catch the visceral layer of the tunica vagi-

nalis, leaving a lower aperture of half an inch in length, for drainage.

The parts should be supported either by the scrotal support (see College and Clinical Record, vol. ii, page 264) or towels or oakum. The dressings should be light—carbolized oil, salicylated cotton, lead water and laudanum; or a poultice when indicated; the latter will do good service from about the seventh to the twelfth day. Internally, good nourishment, quinine, or, if fever arises, an aconite fever mixture, is indicated.

From about the third day very mild, warm injections may be used to advantage; thus, one part of carbolic acid to a hundred of water, ten grains of permanganate of potassium to a quart of water, etc., at about ninety-five degrees of heat, should be daily employed in washing out the sac. If the drainage opening show a tendency to close, a small piece of oiled lint may be passed between the lips of the wound. After the tenth day gentle traction may be made upon the ligatures, which all come away before the fourteenth day.

The patient should remain in bed a few days after the ligatures come away. The remaining wound gradually granulates, being eventually a sinus, which, with proper stimulants (one of the best being nitric acid, ten or fifteen drops to the ounce, or a probe coated with the nitrate of silver and passed into the wound daily, every other day, or as circumstances require), heals in a short time. The quantity of fibrin, etc., effused will leave a "lump" in the scrotum, which, however, finally disappears.

The cases I operated upon by this method, as stated before, have made excellent recoveries. In the first case the scrotum was long, pendulous, and instead of making an incision parallel with the raphe, I cut at right angles to it, making two curved incisions, thus removing about two inches of tissue from the front of the scrotum and materially shortening the sac when the sutures were applied. In this case, after the third day all fever subsided, and the ligatures came away, one on the seventh, the other on the thirteenth day. The second case was also successful, but devoid of any especial points of interest.

The third case did not do so well at first. The scrotum was very short, the varicocele slight, but sufficient to keep the patient out of the United States army. At his request I operated. High fever for a week and a slight slough of the tunica vaginalis occurred; then the case assumed a better character, and is now nearly well, nothing but a small opening still remaining.

After the patients leave their bed, I urge them to wear a good suspensory for a few months, after which they cast it aside. All of my cases have been up, attending to their various pursuits, by the sixteenth day; in fact, the last two were enabled to resume their work before the fourteenth day.

The advantages of the operation, briefly, are these: simplicity, certainty of success and rapidity of cure—to say nothing of the free drainage and the free exposure of the parts involved; hence, the impossibility for any surgeon who knows anatomy to do other than what the case demands.—*Philadelphia Medical Times.*

ABSTRACTS AND GLEANINGS.

Influence of Calomel on Fermentation and the Life of Micro-Organisms.—The following is an abstract of a paper by N. P. Wassilieff, in New Remedies: Calomel has always held a foremost place amongst those remedies which are confidently resorted to in certain gastric and intestinal disorders, especially of childhood, but the precise nature of its beneficial effect has heretofore been unexplained. Recent works on pharmacology pass over the question, and only Kohler refers to the favorable action of the drug in typhus, cholera, dysentery and other diseases, as being due to the germicidal and anti-fermentative qualities. No evidence in support of this view is adduced. Voit, however, had noticed, in 1857, that egg-albumen and blood, when mixed with calomel, remained for days without undergoing putrefaction. Hoppe-Seyler also mentions an aseptic influence of calomel, and ascribes to it the well-known color of bowel discharges after an administration of calomel.

The author undertook this investigation at the request of Hoppe-Seyler, first, in regard to the behavior of calomel towards the so-called unorganized fluids (enzymes), and, secondly, as to its action on the lower organisms associated with the processes of fermentation and putrefaction. The first series of experiments were made in order to determine the influence of calomel on the normal process of digestion in the stomach. The results proved that its presence in no way interfered with the properties of the gastric juice, fibrin being digested in the same time, whether calomel was present or not. In the next series, the influence of calomel on the process of pancreatic digestion was investigated. It is now known that three separate ferments exist in the pancreatic secretion, by which albuminates, fats and carbo-hydrates are severally transformed and fitted for assimilation in the system. The object in view was to observe the possible influence of calomel on each of these respective ferments. For the purpose of experiment, a watery extract was prepared from the finely-minced gland and strained through linen. It was found that the action of the ferment, by which albuminates become digested, was in no respect hindered by the presence of the calomel, and further, that there was a conspicuous absence from the liquid mixture of all products of putrefaction. In the mixture containing calomel large quantities of leucin and tyrosin were found, whilst indol and phenol were absent. In the mixture without the addition of calomel, the two latter bodies were both present, but only traces of leucin and tyrosin. The latter solutions had likewise a putrid smell and a dirty-brown color, whilst the former was of a dark-gray color, and odorless. In some additional experiments wherein the process was allowed to proceed in a Bunsen gasometer, and the evolved gases examined; it was found that from the mixture containing calomel, hydrogen and hydrogen-sulphide were never given off, and carbonic anhydride in very considerably less amount than from the control

mixtures without calomel. These results accord with those of Hufner (J. pr. Chem., 10 and 11), who found, in his experiments on artificial digestion with pancreatic extract, that when, by means of a properly arranged apparatus, entrance of micro-organisms was prevented, neither hydrogen nor hydrogen-sulphide made its appearance, but only carbonic anhydride. These two first-named gases have, therefore, nothing to do with digestion proper, but are the result of putrefactive changes brought about by the presence of microzymes in the alimentary canal.

The action of calomel on the ferment of the pancreatic juice, to which the digestion of fat is due, was next examined. The existence of such a principle has, until now, been considered highly doubtful, Paschutin's observations on this head being all that is known of the subject (W. Paschutin, *Ueber Trennung der Verdauungs-Fermente; Centralbi fur die Medicin. Wissensch, 1882*). As in putrid solutions, fats became saponified rather quickly; the problem became an important one to determine whether the transformation of fat in the alimentary canal was owing to the action of an unorganized ferment or merely to the putrescent changes going on there. The experiments made proved beyond a doubt that the action of pancreatic juice upon fat took place in the complete absence of putrefaction, and the digestion of the fat by the pancreatic extract in presence of calomel proceeded precisely as in the instance of the experiments in regard to the peptic ferment (trypsin) of that gland. The action of the third and remaining ferment of the pancreas, the diastatic, upon starch, and the transformation of the latter into glucose, proceeded equally undisturbed in the presence of calomel. Hence it follows that calomel, by its presence in these experiments on artificial digestion, allows the actual process of digestion to go on without injury, whilst it effectually prevents putrefactive change. And this, in the same way, is proved for salicylic acid by Kuhn, and, in the case of arsenic, by Scheffer and Bohm.

The author also found the action of calomel in the process of butyric acid fermentation, which sometimes occurs in certain pathological states of the digestive system, similar to that in common putrefaction, entirely preventing it. A further series of experiments, which need only be referred to here, were carried out to determine the disinfectant action of calomel in fluids containing bacteria and micrococci, the bacterioscopic method of Bucholtz-Wernich being used. The results showed that calomel acted as a true antiseptic and disinfectant in preventing the development of such organisms in culture fluids, and arresting their activity when already developed therein. The difference in the influence of calomel on the process of digestion on the one hand and on putrefactive and fermentative changes on the other, is dependent upon a distinct difference of action on unorganized ferments. Whilst it does not interfere with the activity of the latter, it destroys the vitality of the former, and with it the power of inducing subsequent septic changes. Finally, as regards the green color of the bowel discharges witnessed after the exhibition of calomel, this was formerly attributed to the presence of bile expelled by virtue

of the assumed action of calomel as a cholagogue, this appearance was considered by Hoppe-Seyler to be due to the presence of undecomposed bile, and the author's experiments now confirm this view.

Under ordinary conditions, the bile pigments, bilirubin and biliverdin, become decomposed in the intestine under the influence of putrescent changes, forming hydrobilirubin. During the administration of calomel this decomposition does not take place, and the bile pigments are expelled unchanged. The author concludes that the therapeutic virtues of calomel are to be ascribed to its antiseptic and disinfectant properties.—*Zeitsch. Phys. Chem., 6, 112, in Journ. Chem. Soc.*

Benzoate of Cinchonidine.—This salt is prepared, according to Byasson, in the following manner:

Dissolve 60 parts of benzoic acid in 200 parts of alcohol of 90 per cent., and pour the solution into a porcelain vessel containing 3,000 parts of boiling distilled water. On the other hand, dissolve 200 parts of sulphate of cinchonidine in 2,000 parts of water, with the aid of diluted sulphuric acid and precipitate with ammonia. Wash with a small quantity of cold water. Add the still moist precipitate to the hot solution of benzoic acid, and filter while hot. If the solution is not faintly alkaline, make it so by the cautious addition of ammonia. On cooling, the benzoate of cinchonidine separates in form of small, thin, prismatic needles, much resembling the neutral sulphate of cinchonidine. By evaporation of the mother-water, a new crop of crystals is obtained, which are added to the first, and then washed with cold water. The yield is about 200 parts.

Bouchardat recommends this salt in mild cases of diabetes with excessive uric acid production, which he calls "glyco-polyuric diabetes." He follows the authority of Ure, who states that benzoic acid unites with uric acid, and forms hippuric acid or alkaline hippurates, which are both more soluble than uric acid or urates.—*Pharm. Post, No. 34.*

Treatment of Nævus.—There are several recognized and legitimate ways of treating "mothers' marks," as nævi or vascular stains are denominated. One method is to remove the discolored integument by a series of elliptical excisions; and another is to puncture the disorganized skin with a cataract needle; and still another is to paint the nævoid spot with tincture of thuja.

Lately I have had under my treatment a nævus—arterio venous—of the eyelid. It involved the integument and the conjunctiva, so that excision was impracticable. Besides, the alcohol of the thujal tincture provoked undue irritation of the eye. To hasten a cure I injected a few drops of the tincture of thuja into the vascular mass every week, using a small hypodermic needle for the execution of the purpose. Some inflammation followed the injections, yet this was in no way baleful. In ten weeks no deformity existed. Injections were made on six different occasions. The result was highly satisfactory. Nævi of the vulva may be cured by the same method.—*Ec. Med. Journal.*

Doctor Kocher, of Berne, read a paper before the Twelfth Congress of the German Surgical Society, held at Berlin, a few months ago. His subject was "Extirpation of Bronchocele and its Results," in which he suggests that the thyroid gland is a regulator of the cerebral circulation. Sometime after the removal of the gland persistent and progressive amæmia arises, proving, as he thinks, that the gland is a blood producing organ. Anæmia after removal of the spleen is but temporary. The paper was followed by one on the same subject by Dr. Bardelebin, of Berlin, in which he denied the blood-forming functions of the spleen and thyrain gland. He removed both these organs in a dog several years since and observed no evil consequences. He claims that in Dr. Kocher's cases the amæmia would have developed without operation.

Experiments on the lower animals have their value, but deductions from them cannot be regarded as absolute.

Dr. Maas, of Freeburg, presented a third paper on "Bronchocele." In five hundred and twenty-two cases, he operated only twenty-three times. In all the other cases the tumor was diminished by treatment with iodoform. We see how important the subject of goitre is in Central Europe.

Dr. Maas also presented a paper on "Alkaloids of Decomposition," which opens up a curious field of study. He found three alkaloids in decaying animal matter. They were present in great quantity and found as early as 24 hours after death. The first in small dose, induced marked tetanus, and a larger dose caused death in 30 to 40 minutes. The action of the second, resembled that of morphia, while the third was similar to strychnia in its effects. These researches suggested that we may have conditions accompanying wounds that are due to the development of these alkaloids.—*Med. World.*

Aspidospermo Quebracho.—Dr. John Fearn, in the California Medical Journal, gives the results of his experience with this respiratory stimulant. He concludes, as a result of his observations, that it stimulates and tones the pneumogastric nerve, and especially the cardiac and pulmonary branches of that nerve. He reports two cases in which he employed the agent. In the first there was severe dyspnœa, an anxious look and cyanotic countenance due to cardiac disease. In the second case the dyspnœa was due to pneumonia. In both cases the exhibition of quebracho was promptly followed by relief to the breathing. He enjoins an intelligent choice of the remedy in individual cases, intimating that its promiscuous empirical use must be attended with frequent failures.—*Ther. Gazette.*

To Hasten the Action of Quinine.—It is claimed that the administration of a weak tartaric acid lemonade, immediately before swallowing powder or pills of quinine, will facilitate the absorption of that drug. In addition to its effect in thus accelerating solution and absorption, it is said, also, to obviate the unpleasant gastric irritation experienced in the case of some after the administration of large doses of quinine.—*Ther. Gazette.*

A Remarkable Case of Obstetrics.---Abortion at Two Months and Quadruplets at Full Time.—Drs. Edwards and McTaggart, in a report (Canada Medical Record), say: On July 21, 1883, we were called to Mrs. S., small of stature, aged thirty-eight, weight one hundred pounds. She thought herself but five months *enciente*, but from her history and condition it was evident that she was seven months pregnant. She last menstruated on December 4, 1882. About seven weeks from this time she commenced to flow, which lasted for some three weeks, accompanied by pain. With a pain resembling a labor pain something was expelled, which she described as a lump of flesh with bloodvessels in it. To this "lump" was attached a short string. At this she became alarmed, and consulted a medical man, who assured her that she had had a miscarriage. He prescribed some medicine which he said would check the flow and cause the expulsion of anything that might remain. From her account the flow increased for a few days, then finally stopped. From this time until Friday, the 14th September, 1883, she has been, comparatively speaking, quite well, although distressed by the immense size and weight of the abdomen. On the evening of this date (Friday, 14th September) she was delivered of four living children, two boys and two girls; the time elapsing between the birth of the first and that of the last child being one hour and forty-five minutes. The weight of the male children exceeded that of the females by a few ounces. Weight of males, four pounds, nine ane one-quarter ounces, and four pounds three ounces; females, four pounds six ounces, and three pounds, thirteen and three-fourths ounces. Labor terminated faborably, there being no hemorrhage to speak of. There was but one placenta, each cord being inserted at different parts of its surface. The quartette are now six days old, all healthy, able to nurse, and bid fair to live. The mother is doing exceedingly well, having suffered no more exhaustion than if she had had but one child.—*Can. Med. Record.—Louisville Med. News.*

Hydrastis in Gonorrhœa.—Dr. A. W. Bixbey reports several cases of gonorrhœa treated chiefly by hydrastis. One of the injections suggested is:

℞ Hydrastiæ sulphatis.....grs. x.
Glycerinæ.....ɪ ʒ
Aquæ destillat.....ʒ iij.

M. Use by injection every three hours.—*Quarterly Epitome Prac. Med. and Surg.*

Napthalin in Frostbites.—Dr. Linderbaum has employed this remedy with success in a number of cases of frostbite. The dressing is usually changed every seven to ten days. In some instances the patients complained for two or three hours after the application of severe stinging pains, caused probably by small crystals of naphthaline. As for us, the author's experience will permit him to judge, the same remedy is equally beneficial in burns.—*St. Petersburg Med. Woch.*

Cancer Remedy.—A correspondent of the British Medical Journal (No. 1175) reports that great relief has been experienced from the use of "clivers" (Galium aparine) as a remedy for cancer. When applied locally, it reduces the size and diminishes the pain of cancer. In Hertfordshire it is also used internally, the directions being as follows: The bowels having been previously cleared by aperient medicine and the patient enjoined to live on most simple diet, five ounces of the juice of the plant (obtained by pounding and squeezing) are to be taken twice daily; at the same time an ointment of the juice is to be applied to the cancerous ulcer, laying the bruised plant over it, and keeping the dressing constantly applied and frequently renewed. The amendment is very gradual, so that steady perseverance in the use of both internal and external means is necessary. According to one account, in three months the ulcer had perfectly healed.—*Med. Times.*

Dr. Martinet thus concludes a paper in a French medical journal on Typhoid Fever during pregnancy:

1. Typhoid Fever is rare in pregnant women.
2. It determines abortion in about one-half of the cases; the more surely, the less advanced is the pregnancy.
3. The lightest forms may produce abortion.
4. This complication arises usually in the course of the third week, and sometimes at the beginning of convalescence; it causes no recrudescense nor return of fever.
5. Puerperal accidents are the exception.
6. The immediate causes of abortion are unknown; elevated temperature, active or passive uterine congestion, and changes in the blood, although seemingly the most probable, cannot be regarded as the causes in all cases.
7. The treatment for the fever and the miscarriage is the same as for each condition alone.—*Med. World.*

Dr. J. M. DaCosta has been testing the therapeutic value of the salts of nickel. The sulphate proved of some value in obstinate diarrhœa. The bromide, however, is the most valuable of all, and will probably take a permanent place in the materia medica. Its action is similar to the other bromides, but a much smaller dose suffices. Five to seven and a half grains is an average dose, and ten grains is a decided one. It relieves congestive forms of headache and quiets the system generally. In epilepsy it does quite as well as other bromides, but, as above mentioned, a much smaller dose suffices.—*Med. World.*

Antagonism between Syphilis and Vaccine.—The Drug. Cir. and Chem. Gaz. for May, 1883, says that Dr. Polin inclines to the belief that there is an antagonism between the vaccine virus and that of syphilis. He was led to this view by the results of some vaccinations performed by him in Algeria. Of 471 children, the vaccination was successful in 410, all of whom were free from any syphilitic taint. Of the 61 children in whom the inoculation did not succeed, 48 presented indubitable evidences of syphilis. (We have made the same observation.—EDS.)—*N. Y. Med. Times.*

Chloral in Albuminuria.—In a bad case of albuminuria, in which the urine had been largely impregnated with albumen, the specimens passed after taking the chloral were of average specific gravity 1016, acid with no albumen; specimens passed at other periods contained albumen and granular and hyaline tube-casts.

A continuation of the chloral treatment resulted in complete disappearance of albumen from the urine, and with it disappearance of the other symptoms I have mentioned. In the middle of the month of July she had so far recovered that she was able to be removed to the sea-side. At the present time she is better than she has been for many months past, and, with the exception of amenorhœa, she is quite well. No explanation is offered as to how the chloral was followed by such beneficial results. Suffice it to say that under its use, a lady so prostrate that she could not stand, with a dilated heart, albuminuria, and marked œdema of feet and legs—indications of a grave constitutional state—has simply been rescued from death. The chloral did not produce any apparent diuresis or diaphoresis.

Amenorrhœa.—Dr. Murrell, in Lancet, says: A married woman came to me complaining that she was never regular. She had had nine children in as many years, and rarely saw anything more than once between her pregnancies. She had been suckling for eight months, and had not been poorly for seventeen months—the nine months she had carried and the eight months she had suckled. She was not in a family way, but said she expected she would be soon if she weaned the baby. She did not know when she ought to be poorly, and had given up all expectation of seeing anything. She was ordered two one-grain permanganate of potash pills four times a day, and came on poorly a fortnight after, the first time for seventeen months.

An Adjuvant to Chloroform.—M. Daster experimented to increase the effect of chloroform, while at the same time he diminishes the danger by preceding its administration by a hypodermic injection of the following mixture:

Aq-destil, 10 grams.
Muriate of morphine, 10 centegrams.
Sulph-atropine, 5 milligrams.

One gramme of this injected prior to chloroformization, a very calm anæsthesia is brought about.—*Gaz. Med. de Nanets.*

Acute Goitre.—Surgeon-Major Gore, Edinburgh Med. Journal, records 30 cases of cure of this disease among the soldiers of a native Indian regiment, by biniodide of mercury, rubbed in for ten minutes or more, as the patient sat with the enlarged gland exposed to the sun or a strong fire. In some of the cases the swelling had been observed for about ten days before treatment. Only one case was any length of time in the hospital, viz: 79 days; an anæmic man, aged 22 years. The average duration of the treatment was 22-6 days.—*Jour. Ame. Med. Ass'n.*

Organic Matter in Drinking-Water.—A trustworthy writer aptly remarks, those who are familiar with the most recent sanitary experience realize that it is the *quality* rather than the *absolute quantity* of organic matter that is the most important factor in the sanitary judgment of a drinking-water. A water which contains a large amount of one kind of organic substance may be much more wholesome, or far less unwholesome, than that which contains only a small amount of another kind. It is a matter of actual experience that a water, notwithstanding it contains a large amount of nitrogenous organic matter capable of yielding albuminoid ammonia, may be found to be practically wholesome, or at least may be drunk for a long period without apparently producing any injurious effects; while, on the other hand, a water which contains *even a minimum* of organic substances capable of yielding albuminoid ammonia may nevertheless contain or develop the *materies morbi*, or unknown causal "something" of a specific disease.

The Ownership of Prescriptions in France.—A rather curious lawsuit lately took place before the justice of the peace at St. Germain, in which a pharmacist was prosecuted for having refused to give up a prescription that was taken to him by a patient. The patient claimed the prescription as being his property, which the druggist contested; but the tribunal decided otherwise, and the prescription was restored to the patient. The Societe de Medecine Legale, commenting upon the case, admitted that the decision of the judge was unassailable from a legal point of view, but took the same ground as most medical societies in this country, viz., that the repetition of prescriptions is sometimes injurious to patients, and always detrimental to physicians, in a pecuniary sense.—*Druggists' Circular and Chemical Gazette.*

Paraplegia in a Child caused by Intestinal Worms.—A child of ten years was brought to the London Hospital and placed under the care of Dr. Thorowgood as a case of infantile paralysis. She had lost strength in her lower limbs gradually, for three months had been unable to walk, and was then quite unable to stand. The legs were not much wasted. Upon inquiry, it was ascertained that the patient also had been troubled with ascarides. An aloetic purgative mixture was given for several days, which acted well and brought away many worms. In two days she was able to run and walk about the ward as well as could be desired; and a few days later, as she seemed perfectly well, she was allowed to go home.—*Lancet, July 28.*

In the Journal de Medicine de Paris are collected the results obtained by several observers in the prevention of abortion and premature labor by assafetida. In ninety per cent. of the cases so treated the patients (who had aborted from two to five times in former pregnancies) went on to full term.—*Louisville Med. News.*

Prevention of Mammary Abscess.—A mixture of chloroform and glycerine, well shaken and quickly applied, and covered with oiled silk, is highly recommended.—*Drug. Circular.*

Croton-Chloral in the Treatment of Whooping-Cough.—W. C. Webb, M. D., of Bryantsville, Ky., ("American Practitioner," August, 1883), has come to the conclusion, from the treatment of nearly two hundred cases of whooping-cough, that croton-chloral is by far the most valuable single remedy for its relief. He has found that it is well borne by children. To affect the disease it must be given in decided doses. A child 12 months old will bear one grain of the medicine every four hours throughout the twenty-four. During the first week not less than this should be given. Thereafter the cough is usually so much relieved that few if any doses are required at night If the drug be thus pushed to its full effect, there are few cases that may not be entirely controlled in a fortnight. The dose for children ten years old should be two grains every four hours; adults will bear only about four-grain doses. The drug thus used does not derange digestion or affect the vital nervous centers. The first few doses may cause some irritation about the throat and fauces, but this soon ceases. The relief is so marked in some cases that patients fall asleep in their chairs.

Croton-chloral, if pulverized, will dissolve readily in compound tincture of cardamom. The following is a good prescription—

℞. Croton-chloral ..... ʒ i,
Tinct. cardamo.....
Glycerin ..... } aa. ʒ ij.

M. Sig. One-half teaspoonful every four hours, for a child two years old and under.

A less expensive and very useful mixture is as follows:

℞. Croton-chloral ..... ʒ i,
Tinct. belladonna..... ʒ ij,
Tinct. cardam. co..... ʒ ij,
Glycerin ..... ʒ iij.

M. Sig. Dose, one-half teaspoonful.

If the paroxysms of cough are exceedingly severe, and if there is extreme gastric irritability, the croton-chloral should be preceded by a few whiffs of chloroform. The anæsthetic thus used produces the happiest effects, and it need not be repeated more than two or three times. The combination of bromides with the croton-chloral is of doubtful utility. If any of them are to be used, the bromide of quinine should be preferred. Watchfulness should, of course, be exercised during the use of croton-chloral, lest toxic symptoms should appear.—*N. Y. Med. Record.*

Iodo-Ferrated Syrup of Coffee.—Povesi gives the following formula for an iodo-ferrated syrup of coffee, which is especially adapted, from its agreeable flavor, for use in cases of scrofula occurring in children: ℞ Syr. ferri. iod., syr. coffee, aa partes æquales. The dose is one-third that of syr. ferri. iod.—*Gaillard's Med. Journal.*

SCIENTIFIC ITEMS.

Gelatine Test for Organisms in Water.—Dr. Angus Smith, of Manchester, has recently brought forward a new test for the detection of organisms in water. It consists in rendering the water thick by dissolving gelatine in it. If the water is pure, the gelatine cylinder remains long unaltered; but, if it is impure from the presence of organisms, the gelatine round these becomes liquefied and globular, the organisms remaining solid at the bottom of the spheres. Dr. Angus Smith has prepared photographs of test-tubes of water which had been thickened by a solution of the purest fish gelatine, and then exposed to the action of light. When the water was pure, it remained translucent; but when bad, bubbles were rapidly formed, and the bacteria which appeared to be in the water began to act on the gelatine, breaking it up and rendering it soluble. A rapid movement of gas was observable. When the bubbles or balls appeared to be spherical, they indicated aggregations of bacteria. This change took place quickly, almost in twenty-four hours But the test was only applicable where infusoria or fungi were present. For instance, peaty water free from animalcules or bacteria would stand without breaking up the gelatine. To change the gelatine, organisms must be present. Organic matter that is not putrescent or infective will not do it.—*Pop. Sci. News.*

Discovery of Prehistoric Men.—Recently, while a new gallery was being pierced in a coal-mine at Bully-Grevay, in the French Department of Pas-de-Calais (*Lancet*), a cavern was opened where the fossil remains of five human beings were found, a man seven feet tall, two women six and six-and-a-half feet, and two children about four feet Fragments of arms and utensils of stone and petrified wood, with remains of mammals and fish were also brought to light. A second chamber enclosed remains of eleven human bodies of large size, several animals, precious stones, etc. The walls exhibited drawings of men fighting with gigantic animals. The petrified bodies were brought to the surface and will be examined by experts from the Academie des Sciences and the British Museum.—*Maryland Medical Journal.*

Liquid Oxygen and Nitrogen.—According to the latest researches oxygen when cooled to 137° C. (213° F.) liquifies to a colorless transparent liquid at the very moderate pressure of 23 atmospheres or thereabouts. Nitrogen at the same temperature, when the pressure is cautiously allowed to fall to a point not lower than 50 atmospheres, yields a colorless liquid with distinct meniscus. Ozone under quite moderate limits of pressure and temperature, is a liquid of intensely blue color which gives a vapor which can only be compared in color with the brightest blue sky. Pure alcohol is a white solid at about 130° C. (202° F.). At a very slightly higher temperature it is luicous like oil.—*Lancet.*

How to Mix Paints.—The following table, the source of which we are unable to trace at this moment, though we can vouch for its trustworthiness, will be found serviceable, especially for *amateurs*, as showing how simple pigments are to be mixed for producing compound colors:

Buff—Mix white, yellow ochre and red.
Chestnut—Red, black and yellow.
Chocolate—Raw umber, red and black.
Claret—Red, umber and black.
Copper—Red, yellow and black.
Dove—White, vermilion, blue and yellow.
Drab—White, yellow ochre, red and black.
Fawn—White, yellow and red.
Flesh—White, yellow ochre and vermilion.
Freestone—Red, black, yellow ochre and white.
French Gray—White, Prussian blue and lake.
Gray—White lead and black.
Gold—White, stone ochre and red.
Green Bronze—Chrome green, black and yellow.
Green Pea—White and chrome green.
Lemon—White and chrome yellow.
Limestone—White, yellow ochre, black and red.
Olive—Yellow, blue, black and white.
Orange—Yellow and red.
Peach—White and vermilion.
Pearl—White, black and blue.
Pink—White, vermilion and lake.
Purple—Violet, with more red and white.
Rose—White and madder lake.
Sandstone—White, yellow ochre, black and red.
Snuff—Yellow and Vandyke brown.
Violet—Red, blue and white.

In the combinations of colors required to produce a desired tint, the first-named color is always the principal ingredient, and the others follow in the order of their importance. Thus, in mixing a limestone tint, white is the principal ingredient, and red the color of which the least is needed. The exact proportions of each color must be determined by experiment with a small quantity. It is best to have the principal ingredient thick, and add to it the other paints thinner.—*Popular Science News*,

Strength of Insects.—At a meeting of the Maryland Academy of Sciences, Dr. Theobald showed a species of beetle, and gave the following figures: weight of beetle, 2 grains; weight moved by it, 5½ ounces or 2,640 grains, or 1,320 times the weight of the beetle. A man weighing 150 pounds, endowed with the strength of this insect, should therefore be able to move 198,000 pounds, or nearly 100 tons.

A six-pound pickerel, caught near Shelby, Iowa, had attached to it a complete set of fishing tackle, except the pole.

PRACTICAL NOTES AND FORMULÆ.

Treatment of Catarrh.—The following combination is stated by M. P. Vigier to have been used with good success in catarrhal affections:

℞ Picis liquidæ.....1.0 gm.=grs. 15,
Benzoini.....1.0 " " 15,
Pulv. ipecac et opii.....1.0 " " 15.

Mix. Make into ten pills. Take three pills daily between meals.—*New Remedies.*

Iron Rust Spot Remover.—

Cream of tartar.....50 parts,
Binoxalate of potassium, powdered.....50 parts,
Oil of rosemary..... 1 part.

Rub to powder and mix well. Moisten the spot, place on a heated tin plate and rub with the moistened powder.—*New Idea.*

"Anti-Spree Mixture.—

Pepsin, pure (in scales)..... 20 parts,
Water.....2,000 "
Hydrochloric acid..... 15 "
Oil of sassafras..... 6 "

Mix. Shake well. Take a tablespoonful every hour.

Half-ounce doses of *Liq. ammon. acetatis* at intervals of two to four hours in water is a favorite in many hospitals, and three drops of tincture of nux vomica, in a little water, taken every hour, is a good remedy for bracing up on. These mixtures are chiefly serviceable for quieting the disturbed stomach, but are of little value in relieving the disorganization of the nervous system that ends in delirium.—*New Remedies.*

To Protect Surgical Instruments.—The following is recommended by Prof. Olmstead, of Yale College, (Pop. Sci. News): Melt slowly together six or eight parts of lard to one of resin, and stir until it is cool. Rubbed on a bright metalic surface, it protects the polish effectually. It can be wiped off nearly clean, if it is desired, as in case of knife blades, or it can be thinned with coal oil or benzine. The surface should be both bright and dry, as it will not prevent the continuance of oxidation already begun.—*Med. and Surg. Reporter.*

Oxide of Zinc in Diarrhœa.—M. Gubler has found it most useful in the diarrhœa of phthisis, and whenever ulceration of the uterus is suspected. He gives it in powders in the form:

℞ Oxide of zinc.....grs. xxx,
Bi-carbonate of soda.....grs. x.

In four powders, two or three daily.

Follicular Pharyngitis.—Dr. Shoemaker, of Kansas, in Peoria Medical Monthly, says: "For this affection, for internal topical applications I find the following to prove satisfactory when used as directed:

℞ Tannic acid.....℥ ij,
Iodoform.....grs. xx.

M. And use upon the parts by means of the insufflator, and care must be taken in selecting and using the instrument in this disease. A glycerite of tannic acid and iodoform, as the following, is excellent:

℞ Tannic acid.....ʒ ij,
Iodoform.....grs. cxx,
Glycerine pura.....pt. ½.

M. And apply to the throat with camel's hair brush, according to circumstances.

Or either of the following may be used, according to the fancy of the doctor:

℞ Quina sulph.....grs. xxiv,
Cupri.....grs. xxxij,
Acidi sulphurici arom.....℥ j,
Aqua pura.....ʒ xvj.

Fiat mistura et signa. Tablespoonful four times a day as a gargle. Or,

℞ Infus cinchon.....ʒ viij,
Mellis desp.....ʒ ij,
Acidi muriatici.....gts. xij.

Fiat gar gargarysma. This may be repeated several times daily."

Resorcine in the Treatment of Purulent Vaginitis.—The recent introduction of resorcine into therapeutics has developed some properties which render it especially applicable for external use. Cheron has employed it with success in the treatment of vaginitis purulenta, in both the acute and chronic stage. When there is much tenderness, so that a speculum cannot be introduced, a soft catheter or tube is pushed in, and irrigations of from six to ten minutes' duration are practiced three times a day of the following:

℞ Resorcin.....10,
Aquæ fortis.....1000.

M. As a result, the purulent discharge is rapidly reduced and the soreness subsides, so that a modification of the treatment may be made. He then applies,

℞ Resorcin.....6,
Amyli glycerit.....60.

M. This is to be carried to the bottom of the vagina, with the aid of the speculum, upon a tampon of cotton-wool, which is allowed to remain in place for from twelve hours to fifteen hours. The dressing is repeated every second day. Cure is thus obtained more rapidly than with the ordinary emollients and astringents.—*Le Progres Medical; Revue Med.-Chir. des Maladies des Femmes.*

Eczema Rubrum of the Face and Scalp.—An infant aged seven months presents a marked form of this disease upon the cheeks and vertex, consisting of patches of inflammation, here and there oozing and covered with scales and adherent crusts. The case has been under treatment here for several days, and the lesions on the face are showing signs of improvement, while those on the scalp exhibit evidences of neglect, the crusts being allowed to remain. It is remarkable often how mothers, and even physicians, will object to the removal of these crusts. But as long as such effete material is permitted to remain, no remedies can be applied with success; it must, therefore, first be removed. After this has been done in this case, the following ointment will be ordered:

℞ Acid. salicylic.....grs. xv,
Pulv. zinci oxid., } aa .....ʒ j,
Pulv. amyli, }
Cosmoline.....ʒ vj.

Sig. Apply twice a day.—*Med. and Surg. Rep.*

On the Treatment of Whooping Cough.—

℞ Croton-chloral.....ʒ j,
Tr. cardam.....ʒ ij,
Tr. belladon.....ʒ ij,
Glycerin.....ʒ iij.

M. Dose, half-teaspoonful to a child two years old every four hours. I have sometimes combined the several bromides with the croton-chloral, but I never felt sure that they added in any degree to its efficacy. If one bromide was better than another, it was the bromide of quinia. But I rely now exclusively on the croton-chloral in the management of pertussis. While I have never seen any unpleasant effects from this drug, I scarcely need add that in its exhibition a watchful care should be exercised lest, for some reason, its toxic effects should manifest themselves.—*Dr. W. C. Webb in Amer. Prac.—Med. and Surg. Rep.*

Bryonia.—Just one year ago, a gentleman 71 years of age came to see me, seeking relief for his swelled and paining hands and fingers (rheumatic, not gout). I gave him tincture of bryonia alba, a half teaspoonful to four ounces of water, one teaspoonful every two to four hours. He took it, and was relieved in a few days, regaining perfectly the functions of the members. To-day the man called again, having traveled about one hundred miles, to inform me that his skin disease was entirely cured, and wishing to know whether the medicine he took had also cured him of that malady, as he noticed an improvement from the beginning of taking the bryonia. In all he took one fluid ounce, when the cure was complete. The dermal perversion was ptyriasis of some 25 or 30 years standing, affecting the entire surface of the body. The furfuraceous desquamation was indeed terrible in the latter years; he would shed about one pint of this branny material in the course of a night. He had exhausted science and medicine during the time he was suffering, but without the least benefit.—*Cor. Ec. Med. Journal.*

EDITORIALS AND MISCELLANEOUS.

NOTICE.—*Many of our subscribers have forgotten us in the matter of remitting their dues. Friends, please attend to this matter at once. We are obliged to have money to run the Journal. Our printers are Cash men.* *W.*

☞ RECEIPTS for subscriptions will appear in our next issue.

DEATH OF DR. SIMS.—Dr. J. Marion Sims died in New York, November 13th, 1883. Dr. Sims was a native of South Carolina, but finally settled in New York. He attained to great and deserved eminence in the department of gynecology.

NEW YORK, October 29, 1883.

To the Editors of the Southern Medical Record.

DEAR SIRS,—Will you kindly draw the attention of your readers to the following announcement regarding the United States Pharmacopœia:

Any person having purchased a copy of the United States Pharmacopœia of 1880, and desiring a list of the corrections since made therein, can procure the same by sending a two cent stamp to

WILLIAM WOOD & CO., Publishers,
Nos. 56 and 58 LaFayette Place, New York City.

SEE THE INSERT in this issue of THE RECORD of one of the oldest and most reputable manufacturing houses in this country—Wm. S. Merrell Chemical Company, who make a specialty of medicines of choice quality for physicians' use only; and the enormous growth of their business is due to the care used in the selection of all the crude material used, and the accurate methods by which the most perfect preparations are obtained from the large variety of drugs manipulated in their Laboratory. The proprietors claim that their Green Drug Fluid Extracts are not theoretical creations of an over-fertile brain, for money making purposes, but are the results of thirty years of original investigation and scientific research. Messrs. Lamar, Rankin & Lamar, of Atlanta, are general agents for Georgia.

RENEWALS.

We shall expect our subscribers all to renew their subscriptions for the next year, and, unless specially directed to the contrary, will enter all upon the list for 1884. From all points we are complimented upon the practical character of our Journal—and there are hundreds who have persistently stuck to the RECORD during its entire existence of thirteen years, and who have uniformly testified to its superior practical value and usefulness to the practitioner.

OUR NEXT ISSUE.

Our December number will contain the Index of the present or 13th volume of THE RECORD. Few people are aware of the immense labor and expense required in preparing and publishing an Index. We are in the habit of making a very full one, and so numerous are the items in our Journal, resulting from its condensed and varied matter, that the subscriber who binds his volume at the end of the year, can find something practical and interesting upon almost any subject concerning which information may be desired.

WILL YOU HELP US?

We hope that our subscribers will all pay up and renew their subscriptions for 1884, and we ask our friends also to speak a kind word for us, and if possible send us one or more new subscribers. A word fitly and timely spoken will often induce a friend to take our Journal. THE RECORD has attained to great popularity with the busy practitioner, especially in the South and West. It is our determination to make it more and more popular by increasing its interest and usefulness. Let our friends continue to stand by us, and we will see to it that THE RECORD will more than maintain its present high reputation with the profession in our section and throughout the whole country.

INTEGRITY IN PHYSICIANS.

In all the papers and addresses that are being made upon the subject of Medical Education, and the training of young men for professional life, but little is said upon the importance, on the part of the medical man, of high moral conduct and integrity in his daily walk and life before the world, and of kind relations to professional brethren. If more of this sort of training was inculcated and impressed upon students by preceptors and by the colleges, there would be less talk and less complaint in regard to the violation of the ethics; for the code of ethics, in its true spirit and intent, is but the golden rule, or that physicians, in their conduct toward each other, should simply do as they would be done by.

When, as it sometimes happens in a community where a number of medical men reside, that more than half the number are men of no honesty or integrity of character; no regard for the rights or feelings of medical brethren, and no proper sense of their own reputation or of the dignity and honor of the profession to which they belong, we can expect nothing but jealousies and bitterness to prevail, with injury to the profession and to all who are connected with it in that community. It is policy, not less than correct principle, for physicians to cultivate the most friendly feelings amongst themselves, and so far from opposing or denouncing each other, to pursue invariably the opposite course; talk for each other, defend each other, and help each other in every possible and honorable way. If they will thus act, they will have more practice, more fees for consultations, will make more money, and by frequently mingling and talking with each other will the better enjoy life, and by the interchange of ideas and views make greater progress and accomplish more good in the practice of the profession.

TRANSACTIONS

Of the Medical Society of the State of West Virginia, sixteenth annual session, held in Grafton, May 16th and 17th, 1883. Instituted April 10th, 1867.

A book of 83 pages, neatly published, and kindly sent us by the Secretary, Dr. S. L. Jepson, of Wheeling, Virginia. The roll of membership numbers 140 names. The work contains the minutes and the following papers of interest:

Annual Address of the President, Dr. B. W. Allen, of Morgantown.

Report on Epidemic Diseases—By R. W. Hall, M. D., of Mannington.

Report on New Remedies—By J. M. Lazzell, M. D., of Fairmount.

The Germ Theory of Disease—By E. C. Meyers, M. D., of Wheeling.

Abuse of Ergot in Obstetric Practice—By D. Porter, M. D., of Clarksburg.

Insanity as a Disease—By George H. Carpenter, M. D., of Moorefield.

Puerperal Fever—By S. L. Jepson, M. D., of Wheeling.

Case of Intra-Peritoneal Hæmatocele—By R. W. Hall, M. D., of Mannington.

TRANSACTIONS.

Transactions of the Texas State Medical Association, fifteenth annual session, held at Tyler, Texas, April 24th, 25th, 26th and 27th, 1883.

For the above we are indebted to the kindness of W. J. Burt, M. D., Austin, Texas, Secretary of the Association. It is a neatly gotten up book of 315 octavo pages, and contains, in addition to the Minutes, Constitution, Roll of members, etc, the following interesting papers:

Address of the President—S. F. Starley, M. D.

Hæmaturi Miasmatica—Sam. R. Burroughs, M. D.

Chromic Acid in Uterine Hemorrhage—W. F. Starley, M. D.

Embryo Physician as a Specialist—T. H. Nott, M. D.

Mineral Waters of Texas—J. M. Willis, M. D.

Chloroform in Obstetric Practice—H. C. Ghent, M. D.

Management of Placental Membranes—Alex. W. Acheson M. D.

Cæsarian Section—Post-mortem—J. J. Burroughs, M. D.

Summer Complaints in Children—S. W. Johnson, M. D.

Puerperal Convulsions—J. L. Cunningham, M. D.

Decadence of the Family and Forced Abortion, etc.—W. J. Burt, M. D.

Resume of Surgery—A. P. Brown, M. D.

Ulcer and Intussusception, etc.—J. D. Osborne, M. D.

Antiseptic Surgery—J M. Fort M. D.

Difficulties of Tracheotomy—T. H. Nott, M. D.

Treatment of Internal Hemorrhoids—Will. B. Davis, M. D.

Sponge Grafting—Drs. Beall and Adams.

Treatment of Ulcers, etc.—Wm. Penny, M. D.

Laceration, Cervix, Perineum, and Cancer, etc.—T. J. Wagley, M. D.

Hemorrhoidal Tumors-Meatus Urinarious—Arthur T. Wolf, M. D.

Ovariotomy—J. J. Burroughs, M. D.

Ovariotomy—S. F. Starley, M. D.

Ovariotomy—T. D. Wooton, M. D.

Uterine Polypi, etc.—J. C. B. Renfro, M. D

Congenital Absence of the Uterus, etc.—M. J. Birdsong, M. D.

Vesico-Vaginal Fistula—Hilliary Ryan, M. D.

Progress of Ophthalmology—George P. Hall, M. D.

Cataract Operations—R. H. Chilton, M. D.

BOOK NOTICES.

SOUTH-SIDE VIEWS—Dr. Whedon and the Fathers; also, Dr. Haygood's "Our Brother in Black." By Rev. W. J. Scott, North Georgia Conference. Atlanta, Georgia: James P. Harrison & Co., Publishers, 1883. Price, 50 cents.

We have been kindly presented with a copy of the above work by the author, who, for long years we have known and esteemed as a personal friend, and as a gentleman of marked ability as a writer and as a minister of the gospel.

As it is not a medical work and our space is limited, we will not attempt a full review, but recommend our readers to procure the work and read it, especially those who have read Dr. Haygood's book entitled "Our Brother in Black," and his late Chataqua speech touching the education of the negro.

As a critic, Mr. Scott, though fair and liberal, is yet keen, pointed and withering.

In one of the articles in the book he tells us of having provoked the wrath of Dr. Whedon, editor of a Methodist Quarterly, who "without a premonitory word came at him with the snap and snarl of an enraged tom cat." His handling of the said Whedon was tart, cutting and forcible, yet elegant in language.

His criticism upon Dr. Haygood's book and speeches is most timely and well put. His sentiments touching the unity of the races, social equality, negro education, etc., are forcible and true; and he strikes a deep and responsive chord in the Southern heart when he says—"What if, in the unequal strife of the civil war, we were overwhelmed by immense odds, God yet reigns, and the justice or injustice of our cause could not be decided by the arbitrament of the sword. Nor is the future glory of the South to be promoted by truckling sycophancy or unmanly concessions."

PAMPHLETS RECEIVED.

American Business Directory,—Containing the names of manufacturers, wholesale merchants, banks, bankers, etc., in the following named cities, to-wit: Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Ohio; Detroit, Michigan; Kansas City, Milwaukee, Wis.; New York, Philadelphia, Pittsburg; Pa.; St Louis, Mo. Published monthly by the American Business Directory Company. New York, 132 Nassau Street; Chicago, 133 La Salle Street.

Closing Exercises of the Practitioners' Course of Lectures, delivered in the spring of 1883, in the Hahnemann Medical College and Hospital of Chicago, Illinois.

A Catalogue of Medical and Surgical books, periodicals and transactions from the Libraries of two physicians, lately deceased, which are offered at very low prices, by Robert Clarke & Co., 61, 63 and 65 West Fourth Street, Cincinnati, Ohio.

Lecture XIV, at the College for Medical Practitioners, St. Louis. Diagnosis of Ovarian Tumors, by Edward Borck, M. D.. 225 Washington Avenue, St. Louis, Missouri.

REMARKS ON HYDROPHOBIA—By Charles W. Dulles, M. D. Reprinted from the Philadelphia Medical Times of August, 1883.

ANNUAL REPORT of the Board of Regents of the Smithsonian Institute, showing the operations, expenditures and condition of the Institution for the year 1881.—Washington Government office, 1883. A Scientific publication containing many interesting facts and observations.

SPECIAL NOTICES.

PEARK, DAVIS & CO.—This magnificent Drug establishment, located at Detroit, Mich., have, by unremitting perseverance and faithfulness in all their business interests, obtained the confidence and good will of the medical profession throughout the entire country. They have accomplished much for the progress of Medical Science and largely benefitted mankind by the introduction of new and important Drugs. They are entitled to the thanks of the Profession, and justly deserve the high reputation to which they have attained.

Wm. R. Warner & Co.—This splendid Drug House, so widely and favorably known, both to the home and foreign trade, continue to maintain their high position. Their preparations are regarded by the profession everywhere as unsurpassed for purity and elegance. In respect to their quinine pills, so deservedly popular, the following certificate has been published:

PHILADELPHIA, PENN., December 22, 1882.

An analysis of seven samples of Quinine Pills, obtained without knowledge of the manufacturers, was made and published in the American Journal of Pharmacy by me, and those made by William R Warner & Co., were found to be correct as to quantity and purity of Quinine. HENRY TRIMBLE, *Analytical Chemist.*

DIABETES.—The attention of the profession is called to a new remedy for the successful treatment and permanent cure of Diabetes Mellitus, *GILLIFORD'S SOLUTION*, an aqueous solution of a combination of Bromine and Arsenious Acid. This remedy has also proved very useful in a variety of nervous affections. Manufactured and sold by R. H. GILLIFORD, M. D., Allegheny, Pennsylvania. In half-pint bottles, $1.00 per bottle. Expressed on receipt of price. Sample free, except expressage.

Very Handy.—A full set of Ahl's Splints, containing a splint adapted to every fracture in the body can be bought at A. L. Hernstein's Surgical Instrument Depot in Atlanta at reduced rates, ($25). Address, A. L. HERNSTEIN, Atlanta, Ga.

Surgical Instruments.—A branch house of the New York establishment of A. L. HERNSTEIN, has been established in Atlanta, and will constitute a convenient depot whereat anything in the Surgical line can be bought or manufactured. The Profession throughout the South should note this as an important indication of Southern progress, and should show their appreciation of the same by giving this establishment their encouragement and patronage.

McKESSON & ROBBINS.—This great Drug Establishment of New York, has a wide and long established reputation as reliable and eminently successful business men. Their various preparations are of acknowledged excellence and purity, and are unexcelled for the neatness, taste and beauty with which they are presented to the trade. See their advertisement opposite 1st page of reading matter in this Journal.

More of **ELLIOTT'S** SADDLE BAGS are sold than all other patterns combined. One thousand have been shipped to different parts of the country since January 1st. The proprietor invites a thorough investigation and comparison of every Bag in the market. The U. S. Government did this in 1879, and adopted the ELLIOTT. Doctors that do the same thing get the standard article. Send for circular to A. A. MELLIER, 709 Washington Avenue, St. Louis, Mo.

MARSHALLTOWN, IA., June 18th, 1883.

I received your samples of **Pinus Canadensis** in due time and have given them a good trial. Was so much pleased with them that I have ordered to-day, through the Chicago house with whom I deal, (Lord, Stoutenburgh & Co), a supply for future use. Have had unbounded success with the **Pinus Canadensis** (dark) in Leucorrhœa and Gonorrhœa, and shall continue its use until I can get all the merits I can out of it. ROSA UPSON, M. D.